

ing age of the rocks that contain their fossils. and that during the remotest geological age from which relics of life have come down to us, no animal existed so highly developed as a fish. The growth of the embryos of the higher animals presents phases that appear to illustrate by repetition the course of their progenitors' development up the animal kingdom, exhibiting in transitional stages the likenesses of adult forms that have become extinct. The human embryo, for instance, at one stage of its growth, is actually equipped with gill-clefts, such as those through which fish pass the water that gives oxygen to their blood. Useless organs survive which can only be relics of an outgrown constitution. There are rudiments of hind legs in whales and boa-constrictors. Monkeys have pointed ears, and from time to time children are born possessing them. We all retain muscles for moving the ears, although very few can use them. And every baby confesses its kinship with the monkeys by the disproportionate strength of its arm muscles—a necessary endowment in the days when mothers sprang about the branches of an arboreal home. The peculiar character of the animals and plants of oceanic islands indicates very forcibly that species have originated by development, and that, remote from outside influences, they have undergone changes along special lines of their own. That differences, as marked as those which distinguish one

species
from another. can come about by
development is
proved by the varied forms of our
domesticated
animals. admitting that a Pekinese is
akin to a
bulldog. we cannot deny that there
may be
blood relationship between the horse
and the
donkey. We may be unwilling to
believe that
man is the last shoot of a genealogical
tree that
extends down the length of the animal
kingdom.